H.264 Network DVR

Quick Start

GUI Display with USB Mouse Control

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Please read instructions thoroughly before operation and retain it for future reference.

For the actual display & operation, please refer to your DVR in hand.

IMPORTANT SAFEGUARD

	CAUTION	
	RISK OF ELECTRIC SHOCK	

CAUTION:

To reduce the risk of electric shock, do not expose this apparatus to rain or moisture. Only operate this apparatus from the type of power source indicated on the label. The company shall not be liable for any damages arising out of any improper use, even if we have been advised of the possibility of such damages.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.

This apparatus is manufactured to comply with the radio interference requirements.

Disclaimer

The information in this manual was current when released. We reserve the right to revise or remove any content in this manual at any time. We do not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of this manual. For the actual display & operation, please refer to your DVR in hand. The content of this manual is subject to change without notice.

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Grounding

This is a Safety Class 1 Product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor inside or outside of the instrument is likely to make the instrument dangerous. Intentional interruption is prohibited.

Water & Moisture

Do not expose this product to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the product.

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We are pleased to provide our modifications to the Linux Kernel, as well as a few new commands, and some tools to get you into the code. The codes are provided on the FTP site, and please download them from the following site or you can refer to your distributor:

http://download.dvrtw.com.tw/GPL/076D_Series/arm-linux-2.6.tar.gz

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1. GUI DISPLAY WITH USB MOUSE CONTROL

1.1 Connect USB Mouse

Connect your USB mouse to one of the USB ports on the DVR front panel, and check if there's a mouse icon ( ) on the screen, indicating the USB mouse is detected properly.

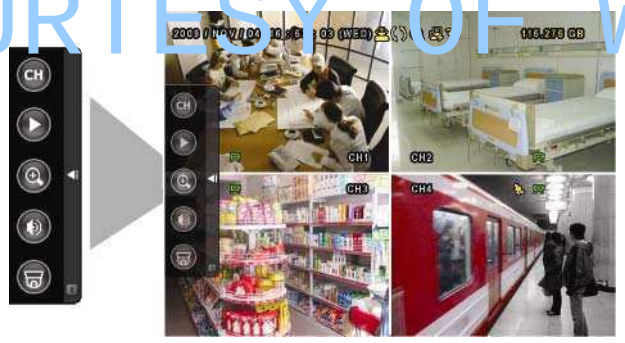
Move your mouse to enter the DVR password with the password keypad. The default administrator password is **0000**. The status will be changed from (key lock) to (administrator), and the quick menu bar appears on the left side of the screen.

Note: There are two user levels for DVR access which can be set in the main menu "SYSTEM" → "TOOLS". For details, please refer to your user manual.

Password Input

Quick Menu: Close

Quick Menu: Open



	Click to show the channel switch panel and select the channel you want. For details, please refer to "3.2 Quick Menu Bar" in the user manual.
	Click to display the playback control panel, and click to play the latest recorded video clip, or click to enter the search list.
	Switch to the channel you want first, and click to enter the zoom-in mode. In this mode, click and drag the red frame on the bottom left of the screen to move to the place you want to see. To exit this mode, click ☒.
	Click to select the audio channel you want: In the live mode, only the live audio channels can be selected. In the playback mode, live and playback audio channels can be selected.
	Click to enter the PTZ mode and show the PTZ camera control panel.
	Click to show the power off panel to either halt or reboot the system.

1.3 Main Menu

Right-click anywhere on the screen to show the main menu as follows, and right-click again to exit.

Main Menu

	QUICK START	Click to set the status display, image settings, and date & time.
	DATE SETUP	Click to set the date display and daylight saving.
	SYSTEM	Click to set the system configurations.
	EVENT INFORMATION	Click to enter the event search menu.
	ADVANCED CONFIG*	Click to set CAMERA, DETECTION, ALERT, NETWORK, DISPLAY, RECORD, DEVICES & DCCS.
	SCHEDULE SETTING	Click to set record timer, detection timer, and alarm timer.

**The available functions may vary depending on the DVR model you have.*

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Main Menu Structure

	QUICK START	GENERAL	CHANNEL TITLE
			EVENT STATUS
			DATE DISPLAY
			DCCS DISPLAY *(For Selected Models Only)*
			MOUSE SENSITIVITY
			PRIORITY *(For Selected Models Only)*
			RECORD CONFIG
		TIME SETUP	DATE
			TIME
	DATE SETUP	DATE INFO	DISPLAY DATE OF MODE
			FORMAT
		DAYLIGHT	DAYLIGHT SAVING
	SYSTEM	TOOLS	LANGUAGE
			ADMIN PASSWORD
			OPERATOR PASSWORD
			UPGRADE
			BACKUP CONFIG
			RESTORE CONFIG
		SYSTEM INFO	BAUD RATE
			HOST ID
			R.E.T.R.
			AUTO KEY LOCK
			CLEAR HDD
			RESET DEFAULT
			REMOTE CONTROL ID
			SERIAL TYPE
			VIDEO FORMAT
			VERSION
		BACKUP DATA (USB)	
		BACKUP DATA (DVD) *(For Selected Models Only)*	
		BACKUP LOG (USB)	
	EVENT INFORMATION	QUICK SEARCH	
		EVENT SEARCH	
		HDD INFO	
		EVENT LOG	
	ADVANCED CONFIG	CAMERA	BRIGHTNESS
			CONTRAST
			SATURATION
			HUE
			COV.
			REC
			CHANNEL TITLE
		DETECTION	LS
			SS
			TS
			MOTION
			ALARM
			AREA
		ALERT	EXT. ALERT
			INT. BUZZER
			KEY BUZZER
			VLOSS BUZZER
			MOTION BUZZER
			ALARM BUZZER
			HDD BUZZER
			ALARM DURATION (SEC)
			HDD NEARLY FULL (GB)
		NETWORK	NETWORK
			SNTP
			FTP
			E-MAIL
			DDNS
	ADVANCED CONFIG	DISPLAY	DE-INTERLACE *(For Selected Models Only)*
			FULL SCREEN DURATION
			QUAD SCREEN DURATION *(For Selected Models Only)*
			DWELL SCREEN DURATION *(For Selected Models Only)*
			DISPLAY COVERT
			HDD DISPLAY MODE
			VIDEO OUTPUT *(For Selected Models Only)*
			ALPHA BLENDING
			VGA OUTPUT
			RECORD CONFIG
		RECORD	MANUAL RECORD
			EVENT RECORD
			TIMER RECORD
			EVENT RECORD IPS
			TIMER RECORD IPS
			PRE-ALARM RECORD
			OVERWRITE
			EVENT RECORD ALL CH.
			KEEP DATA LIMIT (DAYS)
			RECORD CONFIG
		DEVICES	
		DCCS *(For Selected Models Only)*	
	SCHEDULE SETTING	RECORD	
		DETECTION	
		ALARM	

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2. FRONT AND REAR PANELS

2.1 Front Panel

1) LED Indicators

HDD HDD is reading or recording.

An alarm is triggered.

Timer recording is on.

Under playback status.

DVR is powered on.

2) ⏸ (▲) / ■ (▼) / ⏪ (◄) / ⏩ (►)

Press ▲ / ▼ / ◄ / ► to move up / down / left / right.

In the playback mode:

Press "⏸" to pause playback.

Press "■" to stop playback.

Press "⏩" to fast forward.

Press "⏪" to fast rewind.

3) MENU

Press to enter the main menu.

4) ENTER

Press to confirm the setting.

5) LIST (Event List Search)

Press to quickly search the recorded files by event lists: RECORD / MOTION / ALARM / TIME, or select FULL to show all the event logs.

To quickly search the time you want, select "QUICK SEARCH". Set the time range you want and select "start" to play the recorded video clip during the specified time.

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6) PLAY

Press to playback the latest recorded data.

7) SLOW

In the playback mode, press to show slow playback.

8) ZOOM

Press to enlarge the picture of selected channel in the FRAME or FIELD recording mode.

9) SEQ

Press to display each channel in full screen one by one starting from CH1. When the last channel is displayed, it will repeat from CH1 again. To exit this mode, press "SEQ" again.

10) ⊞

Press to show the 4 channel display mode.

11) CH1 ~ 16 / 1 ~ 8 / 1 ~ 4

Press the channel number buttons to select the channel to display.

12) SEARCH *(For Selected Models Only)*

Press to enter the time search menu. Set the time range you want, and select "START" to play the recorded video clip during the specified time.

13) AUDIO (SLOW + ZOOM)

Press "SLOW" + "ZOOM" to select live or playback audio from audio channel 1~4.

Live audio from audio channel 1~4 (indicated in white)	Playback audio from audio channel 1~4 (indicated in yellow)
Audio channel unselected	

14) P.T.Z. (⊞ + SEQ)

Press "⊞" + "SEQ" at the same time to enter / exit the PTZ control mode.

15) USB port

There are two USB ports on the front panel, one for connecting your USB mouse for mouse control, and the other one for connecting your USB flash drive for video backup.

Note: It's not allowed to have two USB mice or two USB flash drives connected on the front panel.

For the compatible USB flash drive list, please refer to "APPENDIX 3" in the user manual.

16) ⏏ *(For Selected Models Only)*

Press "⏏" to open / close the DVD Writer.

2.2 Rear Panel

1) 75Ω / HI-IMPEDANCE *(For Selected Models Only)*

When using Loop function, please switch to HI-IMPEDANCE. When you don't use Loop function, please switch to 75Ω.

2) VIDEO IN (1 ~ 16 / 1 ~ 8 / 1 ~ 4): Connect to the video connector of a camera.
VIDEO LOOP (1 ~ 16 / 1 ~ 8): Video output connector.

Note: The DVR will automatically detect the video system of the camera, please make sure that the cameras are properly connected to the DVR and power-supplied before the DVR is turned on.

3) AUDIO IN (1~4)

Connect to the audio connector of a camera if the camera supports audio recording.

Note: To make a video backup with audio, make sure the camera which supports the audio function is connected to the video-in channel and audio-in channel. For example, the audio data from audio CH1 will be recorded with the video data from video CH1.

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4) AUDIO OUT

Connect to a speaker with 1 mono audio output.

Note: To know how many audio outputs your DVR supports, please refer to its specifications.

5) MONITOR

Connect to a CRT monitor for video output.

6) CALL

Connect to a monitor specific for sequence display.

7) VGA

Connect to a LCD monitor directly.

8) IR

Connect the optional IR receiver extension cable for remote control.

9) EXTERNAL I/O

This port is used to connect external devices (such as speed dome cameras or external alarm, etc).
For detailed I/O port PIN configuration, please refer to "APPENDIX 6" in your user manual.

10) LAN

Connect to Internet by LAN cable.

11) DC 19V

Connect to the supplied adapter.

12) ⏻ Power Switch

Switch to "**I**" to turn on the power, and "O" to turn off the power.

3. BASIC OPERATION

3.1 Live Page

Icon	Function	Icon	Function	Icon	Function
	Live audio channel (1~4)		Playback audio channel (1~4)		Audio channel off
	Digital zoom on		Digital zoom off		Timer recording
	Network disconnected		Internet connected		LAN connected
	USB mouse connected		USB flash drive / device connected		No USB device connected
	Key lock		PTZ mode on		HDD overwrite
	Administrator		Operator		Sequence
	Motion		Recording		Alarm
	Record mode: Frame		Record mode: Field		Record mode: CIF
	DCCS connection OK *(For Selected Models Only)*		DCCS connection failed *(For Selected Models Only)*		

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3.2 Record Icon

1) Manual Recording

By defaults, manual recording is on ( ) when the DVR is powered on and a HDD is installed.

2) Event Recording

When the motion detection or alarm is on, the motion icon ( ) or alarm icon ( ) shows on the screen for any motion or alarm event.

3) Timer Recording

When timer recording is on, you will see " " on the screen.

4) HDD Overwritten

Be defaults, the HDD overwritten function is set to ON, and " " will be shown on the screen.

3.3 Playback

Click " " on the quick menu bar to display the playback control panel, and click to play the latest recorded video clip, or click to enter the search list.

Note: There must be at least 8192 images of recorded data for playback to work properly. If not, the device will stop playback. For example, if the IPS is set to 30, the recording time should be at least 273 seconds (8192 images / 30 IPS) for the playback to work properly.

Note: During playback, the image size of the recording (FRAME, FIELD or CIF) will be shown on the screen.

Playback Control

	Fast Forward	Increase the speed for fast forward. Click once to get 4X speed forward and click twice to get 8X speed, etc., and the maximum speed is 32X.
	Fast Rewind	Increase the speed for fast rewind. Click once to get 4X speed rewind and click twice to get 8X speed, etc., and the maximum speed is 32X.
/	Play / Pause	Click to play the latest recorded video clip immediately, and click again to pause. In the pause mode, click once to get one frame forward, and click to get one frame rewind.
	Stop	Click to stop the video playback.
	Slow Playback	Click once to get 1/4X speed playback, and click twice to get 1/8X speed playback.
/	Previous / Next Hour	Click to jump to the next / previous time interval in an hour, for example, 11:00 ~ 12:00 or 14:00 ~ 15:00, and start playing the earliest event video clip recorded during this whole hour.
A↔B	Repeat	Click to set point A and point B in a video clip, and the system will play only the specified range in that clip.
	Backup	Click to open the backup menu for video backup.

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Event Search

Click to quickly search the recorded files by event lists: RECORD / MOTION / ALARM / TIME, or select FULL to show all the event logs.

To quickly search the time you want, select “QUICK SEARCH”. Set the time range you want, and select “SUBMIT” to play the recorded video clip during the specified time.

Audio Playback

In the playback mode, click on the quick menu bar as many times as needed to select live or playback audio from the audio channel 1~4.

Live audio from audio channel 1~4 (indicated in white).

Playback audio from audio channel 1~4 (indicated in yellow).

Audio channel unselected

Note: To make a video backup with audio, make sure the camera which supports the audio function is connected to the video-in channel and audio-in channel. For example, the audio data from audio CH1 will be recorded with the video data from video CH1.

3.4 User Level Switch

In the key lock mode (), move your USB mouse to display the password input keypad. There are two user levels for accessing the DVR: Administrator () & Operator ().

When the administrator password is entered, will be shown on the status bar of the screen and all operations are allowed. The default administrator password is **0000**.

When the operator password is entered, will be shown on the status bar of the screen, and the main menu is **NOT** allowed to access. The operator user level needs to be set in the main menu "SYSTEM" → "TOOLS".

To switch between these two user levels, click the current user level icon to switch to the key lock mode, and move your mouse to show the password input keypad, and enter the password of the user level you want.

3.5 VGA Output Resolution Support

Users are allowed to change the resolution depending on their display monitor.

Right-click to display the main menu, and select "ADVANCED CONFIG" → "DISPLAY".

ADVANCED CONFIG		
CAMERA	DE-INTERLACE	OFF
DETECTION	FULL SCREEN DURATION	03
ALERT	QUAD SCREEN DURATION *(For Selected Models Only)*	03
NETWORK	DWELL SCREEN DURATION	03
DISPLAY	DISPLAY COVERT	ON
RECORD	HDD DISPLAY MODE	HDD SIZE
DEVICES	VIDEO OUTPUT *(For Selected Models Only)*	BOTH
	ALPHA BLENDING	200
	VGA OUTPUT	1024 x 768
	VGA DEINTERLACE *(For Selected Models Only)*	ON
	COMPOSITE DEINTERLACE *(For Selected Models Only)*	ON
EXIT		

Move to "VGA OUTPUT", and select the VGA resolution you want. There are three options as follows:

- 1024 x 768 (default)
- 1280 x 1024
- 1600 x 1200

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Note: For 4CH models, "VGA OUTPUT" appears only when "PRIORITY" is set to "DISPLAY FIRST". For details, please refer to "3.6 System Sources Reallocation *(For 4CH Models Only)*".

Note: To have the best image quality on your LCD monitor, make sure (1) the selected DVR VGA output resolution is supported by your monitor, and (2) the VGA output settings on both the LCD monitor and DVR are consistent.
If the image is not positioned or scaled properly, please go to your monitor's menu for adjustment. For details, please refer to the user manual of your LCD monitor.

3.6 System Sources Reallocation *(For 4CH Models Only)*

Go to "QUICK START" → "GENERAL", and select "PRIORITY" to reallocate the system sources to live display, and record.

There are three options for this function: RECORD FIRST / DISPLAY FIRST.

QUICK START		
GENERAL	CHANNEL TITLE	ON
TIME SETUP	EVENT STATUS	ON
	DATE DISPLAY	ON
	DCCS DISPLAY	ON
	MOUSE SENSITIVITY	- I I I I I I I I I +
	PRIORITY *(For 4CH Models Only)*	RECORD FIRST
	RECORD CONFIG	SETUP
EXIT		

RECORD FIRST: When this option is selected, Full D1 at real-time record on all channels is available, and the VGA output resolution is fixed to 1024 x 768.

DISPLAY FIRST: When this option is selected, three VGA output resolutions will be available to choose (1024 x 768 / 1280 x 1024 / 1600 x 1200), but Full D1 real-time recording on all channels will not be available.

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APPENDIX DCCS CAMERA CONNECTION *(For Selected Models Only)*

Note: This function is available only for DVR models which support DCCS function.

A1 Prerequisites

- Make sure your cameras support the DCCS function. For details, please check with your distributor or installer.
- To ensure the signal transmission, the recommended distance between this DVR and cameras should not exceed 200 meters by using 3C2V coaxial cables (112 braids).

  However, different materials used in 3C2V coaxial cables with different connection distance may cause some effects for the availability and fluency of signal transmission.

  Therefore, please do the DCCS test as instructed in “A4 Examining Signal Transmission” at page 10 when the connection is completed to ensure this system can work normally.
- It’s not allowed to use a signal booster or modem to amplify signals and extend the connection distance.
- The DCCS function doesn’t support the channel which is looped from a DCCS camera connected to the same DCCS DVR or to other DCCS DVR.

A2 Installing DCCS Camera

Install the camera on the wall or ceiling based on your installation environment and camera type. For installation details, please refer to the user manual of your camera.

Note: The distance between the camera and DVR needs to be within 200 meters for DCCS control to take effects. For details, please refer to “A1 Prerequisites” at page 9.

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A3 Connecting DCCS Camera

The cameras must be connected and power-supplied before the DVR is powered on. Connect the camera with the indicated power supply. Then, connect the camera video output to the DVR video input port with a coaxial cable or RCA cable with BNC connectors.

Note: Only video channel 1 supports DCCS camera connection.

1) Video cable connection

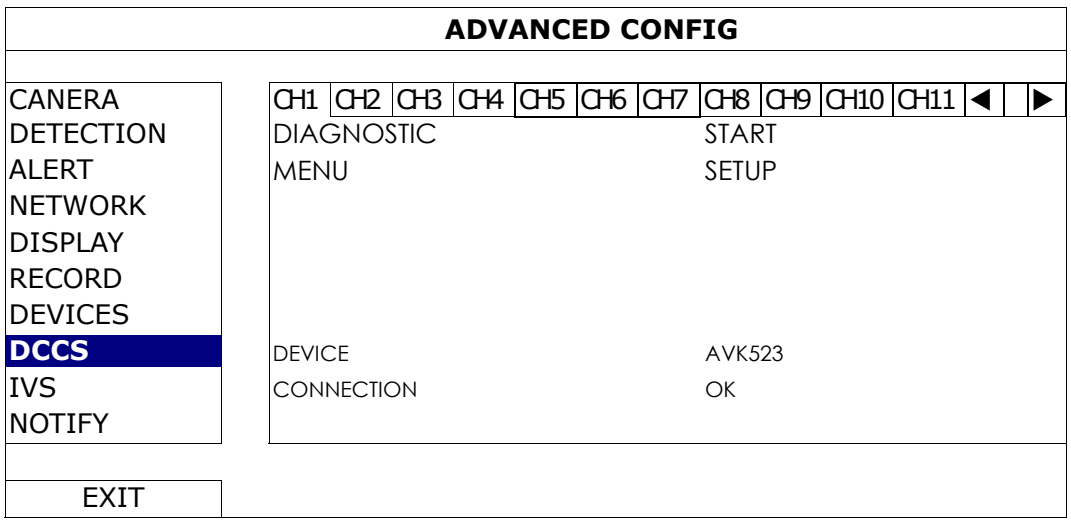
   Connect the camera video output to the DVR video input port with a coaxial cable or RCA cable with BNC connector.

2) Power connection

   Connect the camera with indicated power supply and make sure it’s power-supplied.

A4 Examining Signal Transmission

When the DVR is powered on, right-click to display the main menu, and select “ADVANCED CONFIG” → “DCCS”.



1) Make sure the model number of your DCCS camera is shown in “DEVICE”. If not, please check your camera connection.
2) Select the channel which connects to your DCCS camera, and click “START” in “DIAGNOSTIC” to examine the signal transmission between the DCCS camera and the DVR.

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